Comprehension and Content:

Planning Literacy Curriculum in

Low Socioeconomic and Culturally Diverse Schools

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Abstract

This article reframes comprehension as a social and intellectual practice. It reviews literature on current approaches to reading instruction for linguistically and culturally diverse and low socioeconomic students, noting the current policy emphasis on the teaching of comprehension as autonomous skills and 'strategies'. The Four Resources model (Freebody & Luke, 1990) is used to situate comprehension instruction with an emphasis on student cultural and community knowledge, and substantive intellectual and sociocultural content in elementary and middle school curricula. Illustrations are drawn from research underway on the teaching of literacy in low socioeconomic schools.

Introduction

John Dewey (1910/1997) described comprehension as a thinking process for seeking meaning when there is lack of understanding, perplexity or absence of sense. Human learning and expression are pragmatic acts for making sense of 'incohate' social and cultural worlds (Dewey, 1934). Reading is a goal-seeking activity – a purposive and agentive form of social action. Further, comprehension is a transitive act: one sets out to comprehend something of ideational and intellectual substance. These are identifiable phenomena and their representations, whether construed as social, cultural, biological, existential or cognate. Our case here is that comprehension is not a neutral or empty psychological process or set of generic skills or strategies – it is by definition socially purposive and intellectually substantive: one comprehends something for some particular purpose. Comprehension is, by this account, a cognitive *and* social *and* intellectual phenomenon.

This is a case-based and analytic critique and review of 'stand-alone' approaches to comprehension. In such approaches comprehension can be taught independently of issues of substantive curriculum content. We begin with an overview of conventional definitions of comprehension and implications for current policies and practices that

aim for redistributive social justice in literacy learning, in current policy terms, the 'closing of the equity gap'. Our focus is on the teaching and learning of students from low socioeconomic, cultural and linguistic minority and Indigenous backgrounds. Describing a research project in progress in a Southeast Queensland low socioeconomic school, we propose adaptations of the four resources model (Freebody & Luke, 1990) to comprehension instruction.

Our argument is that for many students from culturally diverse and economically marginalised backgrounds, *autonomous* models of skill acquisition – decoding and comprehension alike – stop short of addressing the need for substantive cultural content and engagement with the social texts and intellectual demands of everyday community life, and affiliated forms of institutional and social action. Drawing from the school reform literature (e.g., Newmann & Associates, 1996), recent research on comprehension instruction in the upper primary school (Lai, McNaughton, Amituanai-Toloa, Turner & Hsiao, 2009; McKeown, Beck & Blake, 2009), and work on the schooling of "minoritised" students (e.g., Bishop & Glynn, 2003), we argue that substantive knowledge content and visible connections to phenomenal, cultural and intellectual worlds are keys to sustainable achievement gains, and that these are currently neglected in the policy debates over improved outcomes. We conclude with a call for the integration of conventional approaches to teaching comprehension with substantive curricular foci on community cultural content and knowledge of disciplinary foundations.

Comprehension and Equity

Historically, the term comprehension has been used in reading research, English education, language arts, TESOL and affiliated fields to refer to understanding or making meaning from text. The cognitive and linguistic turns in the 1960s and 70s led to important investigations of the cognitive processes, linguistic competences and behaviours entailed when human subjects recover and construct, remember and

represent meanings from written, spoken and visual texts. The shift was towards a redefinition of readers as agentive human subjects: whose available cognitive schemata, cultural and linguistic background knowledges, interactional framings of specific reading tasks, and available metacognitive strategies strongly mediated the accessibility of texts, and the depth and range of meanings they were capable of constructing (for a review, see Israel & Duffy, 2008). Hence, late 20th century models of comprehension focused on readers' capacities to deploy cognitive strategies, and on their enlistment of prior knowledge of various kinds and levels (see the work of Palincsar (1986) on reciprocal teaching as an example). This picture has been complicated by the last 25 years of historical, sociological and anthropological debates over the definition of literacy. For now, suffice to say that there is a broad consensus across curriculum and disciplinary fields that comprehension – variously defined - is essential to reading and literate activity in text-saturated societies. It remains the key longitudinal and developmental goal of all school reading instruction, a teleological principle underlying initial literacy instruction and phonics.

Comprehension achievement is a strong predictor of overall academic achievement, especially in the middle years (Alvermann, 2002), and its measurement is increasingly focal in accountability-based educational policy. Policy reanalyses of experimental studies describe overall performance differentials of low socioeconomic, minority, Indigenous, migrant and English as a second language (ESL) students in the US (Snow, Burns & Griffin, 1998; August & Shanahan, 2008) and Australia (e.g., Ministerial Council on Education Employment Training and Youth Affairs, 2005). There are significant differences in comprehension achievement between and within national populations. Across OECD countries, socioeconomic and second language status differentially influence literacy achievement for 14 year olds, with regression analyses showing a greater impact of socioeconomic disadvantage in the US and UK than Nordic countries, Canada, Australia and New Zealand (Schliecher, in press). Further,

migrant second language speakers show more rapid closure of gaps in reading performance in Canada, Australia, and New Zealand than in the US (OECD, 2000).

The various national expert panels convened in the early and mid 2000's shared a strong focus on the early acquisition of decoding skills (e.g., National Reading Panel, 2000; National Inquiry into the Teaching of Literacy, 2005). More recent work has concentrated on conventionally-defined higher order reading skills (e.g., August & Shanahan, 2008). Particularly in the debate over the effects of strong US and UK policy emphases on early acquisition of 'alphabetics' and phonics more generally - comprehension "as defined by mainstream opinions in the United States, in particular by U.S. educational institutions" (Snow et al., 1998, p. 34) at least has re-emerged as a central policy and curriculum goal. However, despite four decades of work at the development of specialised and sophisticated curricula, in many classrooms comprehension is routinely assessed through worksheets and end-of-chapter questions rather than explicitly taught. Walter MacGinitie and Ruth MacGinitie's (1986) observation that this common pedagogical routine teaches student *not* to read stands.

One consequence of the *No Child Left Behind* (hereafter, *NCLB*) implementation has been a resurgence of deficit-based policy and classroom discourses to explain the distribution of comprehension outcomes in diverse and economically stratified populations (Luke & Woods, 2008). Other policy discourses locate achievement problems with lack of "teacher quality" (Little & Bartlett, 2010) and contemporary "politically correct" approaches to teaching literacy, with the list ranging from whole language to critical pedagogy and any general approach deemed 'progressive' (Snyder, 2008). The preferred policy solution in the US and UK has been to centrally script teachers' behaviour and interactional style in accordance with curriculum programs with a putatively 'scientific' basis. The use of scripted comprehension activities remains a concern, especially given new evidence of the cultural effects of heavily scripted instruction for Indigenous and other minority students (e.g., McCarty, 2009).

Individual and group risk factors for comprehension outcomes have been identified. Explanations of low achievement have been defined in terms of 'disrupted' or 'abnormal' development, use of home language or dialect other than standard English, and low SES background (e.g., Snow et al., 1998; August & Shanahan, 2008). Direct instruction in the standard English registers of school texts and vocabulary, and a focus on background knowledge and metacognitive strategies are advocated as means to improve comprehension outcomes. Yet there is current debate over the value and limits of dedicated strategy-based approaches. In a quasi-experimental study, McKeown, Beck and Blake (2009) compared the performance of US year 5 students using a "strategy-based" approach emphasising instruction in specific procedures for accessing text with those using "content-based" approach. The latter focused on open-ended questions around substantive ideational and curriculum content as a medium for sustained talk around texts. They found that that the content approach yielded better performance on standardised measures of narrative recall and expository learning. As importantly, the content approach tended to generate more extended student talk around texts and "transfer effects" to other areas of study.

In the corporate edu-business of literacy, there are quite literally thousands of comprehension approaches and packages lining the tables of conferences and educational trade shows and the display advertisements of professional association journals and newsletters. This marketplace has created a *caveat emptor* for teachers, consultants and principals. These programs are, as could be expected, of variable quality and research bases. Yet many current approaches view meaning as constructed 'in the head' or internal cognitive space of the reader (Connelly, Johnston & Thompson, 2004) and the majority of them adopt what McKeown et al. describe as the "strategy-based approach". These focus on teaching students to deploy particular heuristics, text interrogation protocols and cues that align with metacognitive strategy

(e.g., identifying reading purpose, author intent, elements of text structure, comparison etc).

Working with Hong Kong bilingual and bi-dialectal students, Catherine McBride-Chang (2004) points to the inadequacy of such understandings of comprehension in taking into account not only the *lingua franca* medium, but also specific cultural and political meanings for bilingual students who undertake content area study in English. Contending with ubiquitous multiculturalism and multilingualism, New Zealand reading researchers have argued instead that schools which fail to acknowledge diverse language and literacy capabilities and cultural ways of knowing are 'risky places' for these and other minoritised students (Clay, 1998; McNaughton, 2002).

Concepts of 'risk' and 'lack' are central in longstanding discourses of cultural and linguistic deficit (e.g., Skinner, Bryant, Coffman & Campbell, 1998; Luke & Goldstein, 2006). Yet psychologist David Olson (2002) commented, the achievement differences affiliated with diversity may lie not solely in deep differences in ability or competence but in limited understandings of the differences between schooling and the lives and cultures of students of non-dominant groups. Many effective intercultural and sociocultural approaches aim to create a 'meeting of minds' (McNaughton, 2002; Bishop & Glynn, 2003) or a 'third space' of discourse and practice (Gutierrez, 2008) rather than to 'fill up' individual 'lack' with autonomous skills or strategies. In these accounts, instruction begins from an acknowledgment of divese 'funds of knowledge' (Gonzalez, Moll & Amanti, 2005) and the cultural and community bases of students' existing 'textual and knowledge resources' (Dyson, 1999). Whether we begin from cognitive, developmental or sociocultural models of reading, it is axiomatic that instruction mindfully engage with the prior knowledge and experience, interactional patterns, and the variable needs of a culturally and linguistically diverse cohort of students – in effect, building spaces for the connection of known to new discourses, tools and discourse practices. Yet culturally-based reading comprehension and critical

literacy instruction has received little policy endorsement despite an extensive qualitative literature over three decades that has documented local efficacy (e.g., Au, 1993; McNaughton, 2002; McCarty, 2009; Nixon, Comber & Kerin, 2009; Janks, 2010). Instead, the current push to improve scores on high stakes assessment is leading many of the low socioeconomic schools that we work in to stress 'strategy-based' approaches to comprehension that have a stand alone status in relation to curriculum content in key learning areas other than English.

There is a place for intercultural and sociocultural interventions that focus on improved comprehension outcomes. In early work on reciprocal teaching models, Cole and Griffin (1986) demonstrated that student comprehension can be reconceptualised and reshaped through alterations in face-to-face activity structures around texts. The prototypical work on the systematic inclusion of Indigenous classroom interaction patterns to enhance the teaching of reading was undertaken in Hawaii by Au (1980) and Au and Mason (1983), with approaches sustained by the KEEP project (Tharp & Gallimore, 1993). Specific programs for teaching literacy in transitional bi-dialectal and bilingual settings have been developed in Western Australia by Malcolm and colleagues (1999), in Peru by Hornberger (1987) and colleagues and elsewhere.

The work of Lai and McNaughton and others (Lai, McNaughton, et al., 2009; McNaugton & Lai, 2009) with Maori and Pacifika students in South Auckland schools seeks a continuity of knowledge and practice between home and community and an explicit instructional focus on comprehension. Reciprocal teaching and strategy instruction can be used to help students from diverse linguistic and cultural backgrounds to unlock the unfamiliar and engage with the specialised text demands of schooling. A key factor in McNaughton and colleagues' approach was the introduction of general concepts and principles of comprehension instruction to teachers. Here an emphasis on teacher professional knowledge about student culture, language and communities *and* comprehension and reading set the grounds for school planning of

curriculum and instruction. This, in turn, yielded sustained and durable achievement gains. The South Auckland project, then, systematically brings together the direct engagement and valuing of student cultures and languages with theoretically and empirically-based, but locally developed approaches to reading comprehension. These include but are not limited to direct instruction in comprehension strategies.

In such interventions with students from linguistic and cultural minorities, the aim is beyond comprehension skills per se, with a focus on bridging community cultural practices and epistemologies with systematic introductions to the specialised genres and registers of school and institutional texts. Taken together, they demonstrate how cognitive and psycholinguistic approaches to comprehension can be integrated with substantial engagement with: (1) student cultural and linguistic resources; and (2) rich, culturally relevant and intellectually demanding themes, topics and disciplinary field knowledge. The key to *sustainable* student gains, we have argued, is not in the adoption of specific comprehension packages, but in the development of relevant and sustainable cross-curricular programs based on teachers' cultural understanding and professional/technical knowledge about comprehension. These need to be *content rich* programs.

Autonomous and Ideological Models of Literacy

How might we reframe comprehension as part of a larger understanding of literacy as social and intellectual practice? In an important contribution to the field, anthropologist Brian Street (1984) distinguishes between autonomous and ideological definitions of literacy. Autonomous models construe reading as a set of generic and neutral skills which, once automaticity has been achieved, are transferable across cultural contexts and social activity structures. That is, traditional psychological views of reading have sought to define both decoding and comprehension as universal cognitive and behavioural phenomena. The autonomous models were a logical solution for the emergent 20th century industrial school, which aimed at the provision of replicable,

automated behaviours for transfer to the workplace amongst what was taken as a culturally and linguistically homogeneous population. Yet behaviourism is not the sole domain of autonomous models. Assumptions about universality and transfer of training are also central to cultural heritage and whole language models that stress the universal power of voice and rich literary experiences (cf. Sperling & DiPardo, 2008).

On the basis of an overview of comparative anthropological studies, Street (1984) counters that literacy is necessarily ideologically embedded: that is, the contents, shapes and patterns of its texts and everyday practices are contingent upon complex locally realised cultural contexts, social conventions and values, and institutional structures (Barton, 1994). These are embedded in the ideologies and complex political economies of control and ownership of language, texts and discourse (Graham & Luke, in press). While comprehension undoubtedly entails cognitive processes and reading behaviours, then, these are mediated by and within complex arrays of social practices and cultural knowledges, scripts, material and discourse technologies (Cole, 1996). These contexts are rule-governed and content-laden systems of exchange (Luke, 2008). To recall Dewey, then, reading and writing are by definition pragmatic social actions – institutionally situated activities - whether by virtue of the spatial location of their actual conditions of practice (Leander, Nathan & Phillips, 2010), their specific purposes and functions (Heath, 1986), and the conditions and ownership of textual production and access (Shannon, 1988).

We table two axioms that are frequently overlooked in the rush to achieve comprehension *qua* autonomous skills *qua* improved test score results. First, comprehension is something that is ‘done’ through visible positions, discourse work and practice (Freebody, Luke & Gilbert, 1991). Second, comprehension is transitive and teleological: it is always about something beyond, hopefully, itself and its acquisition. To follow Dewey’s pragmatic logic further, it is a means to a broader

educational ends: substantive problem solving through the enlistment of cultural and scientific, everyday and technical knowledges.

The implementation of *NCLB* - like its UK and, now, Australian counterparts - *has* raised technical issues of sociodemographic classification and the definition of target populations (Lucas & Beresford, 2010), construct definition (Rochex, 2006), measurement validity and reliability (Moss, Girard & Hanniford, 2007; Stobart, 2008). Nonetheless, post-*NCLB* data points to two problem scenarios. First, we have noted evidence of the persistent equity gap in middle and upper primary years achievement. Second, and related, is the widely documented residualisation of purported early skill acquisition gains of these same groups (Allington & Johnston, 2002). Snow et al. (1998, p. 78) attribute this problem to discontinuity in curriculum and assessment between early and middle primary, and to the curriculum transitions from narrative to expository prose. But, working with low socioeconomic schools in South Australia, Nixon, Comber and Kerin (2009) offer a counter argument: that the upper primary slump is in part the product of curriculum and instruction that is disconnected from substantive community and cultural problems, curriculum content and field knowledge.

In our current school intervention work, upper elementary comprehension curriculum interventions have shown positive but constrained effects, as we will explain further below. We hypothesise that this is in part due to the strict adherence to autonomous models of literacy: to the treatment of comprehension strategy instruction as an intellectual/disciplinary content-free and culture-free intervention that, in practice, sits apart from a major rethinking of school curriculum.

Critiques of autonomous models focus on the culturally marginalising effects of skills models on diverse student populations (e.g., Grant, Wong & Osterling, 2007). In a recent review of the effects of NCLB on Native American schools, Brayboy and Castagno (2008) document a decline in classroom engagement with Indigenous cultural and language content (cf McCarty, 2009). Basic skills models tend to put to the

side the multilingual, digital and transcultural literacy resources of students from cultural and linguistic minority groups (Gutierrez, 2009; Warriner, 2007; Dorner, Orellana & Li-Grining, 2007). Yet, emergent work on digital and community-based interventions have shown that problem-solving and creative production with new media can generate sustainable curricular engagement for marginalised students (e.g., Lam, 2009; Pinkard, Baron & Martin, 2007; Hull, Zacher & Hibbert, 2009; Vazquez, 2005; Nixon & Comber, 2005). These critiques extend beyond scripted approaches to decoding, and also relate to the mastery of comprehension through skills and strategy-based instruction. We suggest the need for such instruction to engage with substantive cultural and school knowledge.

If we begin from Street's (1984) premises on the 'ideological' embedding of literacy, there are at least two available approaches to literacy that attempt to address this question: (1) cultural and sociocultural models that begin from an engagement of student prior knowledge, community knowledge, epistemological stance and cultural resources and (2) critical models that focus on actual texts-in-use, their institutions, everyday practices and disciplinary foundations. These, we maintain, are not mutually exclusive from developmental foci on decoding, traditional meaning-making through literature, strategy-based comprehension and so forth – contrary to binary and reductionist popular debates over 'methods'. Our aim is to relocate these within a curriculum context that utilises learners' community resources and that engages with out-of-school social media and institutions. Further, such an approach to comprehension would focus on substantive intellectual and cultural content: "readings of the world" (Freire & Macedo,1987) to set the motivational and curriculum grounds for student engagement and achievement that are sustainable and transferable beyond autonomous skill acquisition.

Comprehension in the Four Resources Model

How might we adapt, blend and modify these diverse approaches within an elementary and middle school curriculum? The four resources model (Freebody & Luke, 1990) outlines a repertoire of practices required to engage in literate societies: coding, semantic, pragmatic/interactional, and critical/text analytic. The model is not an instructional script or program, but a heuristic framework for examining focus and balance in curriculum and instruction. It does not provide programmatic guidelines for which combination of practices *ought* to be deployed. This is dependent upon teachers' professional analyses of community cultural and linguistic context, student cohort resources and needs, developmental age/stage, and overall educational goals of the school and program. It is widely used in the US, Canada, UK, New Zealand, Australia and East Asia and has been adopted for application in mathematics, ICT, social studies, and science curricula (e.g., Underwood, Yo & Pearson, 2007; Brandt, 2008). To establish the place of comprehension in the model, we briefly revisit the four resources. Our question is whether inserting autonomous approaches to comprehension into the model's "semantic" category is sufficient to generate sustained achievement gains for low socioeconomic and minoritised students.

To break the code of texts requires knowledge and familiarity with textual regularities and conventions. To effectively take up the role of *code breaker* necessitates the individual knowing about the patterns of and relationships between semiotic codes - spoken, written, visual and multimodal. This includes but is not limited to alphabetic knowledge and grapho/phonemic regularities, including punctuation, print formatting, elements of lexicon and orthography, syntax and grammar. Digital and multimodal texts require recognition of the basic semiotics of hyperlinks, navigation tools, icons, screen location, and so forth.

To take up the practices of *text participant/meaning maker* requires competence in connecting texts' semiotic systems to readers' background knowledges, experiences and understandings. *Knowledge and discourse schemata are cultural resources*

(VanDijk, 2010). “Relevant and purposeful inferences … can be drawn” (Freebody & Luke, 2003, pp. 54-55) from the connections of texts, meanings, experience and knowledge. The emphasis here is not just on ‘meaning’ per se, but on the visible “connectedness” to everyday and scientific worlds (Newmann & Associates, 1996), on using texts to construct possible meanings and making links to other social and textual worlds, known and new.

Participation in everyday literacy events entails situated social action. To use texts functionally requires tacit and explicit understandings of the institutional dynamics, rituals, constraints and possibilities of text use. To be a *text user* involves understanding that texts are shaped to make meaning in specific contexts. Understanding that purpose and participants shape the way that texts are structured, their formality and tenor, and their generic features are all key to using texts functionally. An effective text user deploys texts for particular purposes in specific institutional contexts, and has a strategic repertoire for working with texts in face-to-face and virtual literacy events – comprehension instruction events included. The emphasis here is on teaching about and around specific social fields of application.

To critique or ‘analyse’ texts begins from the premise that all texts are value-laden actions that attempt to ‘do something’ to (i.e., have a perlocutionary effect upon) audiences and readers. Their truth claims aside - all texts position, define and influence people’s ideas and opinions in particular normative directions, with interests and intents. At times this occurs overtly and in other instances, textual ideology is seamless, apparently ‘natural’, and less visible. Texts have histories, ideological bases, authorial biases, and cultural standpoints and effective *text analysts* can identify the ways in which texts bid to define the world, position and, potentially, manipulate readers.

Different texts and contexts variably call upon readers’ repertoires of textual practice. How and in what ways these are deployed are not only contingent upon readers’

cultural background knowledge of code, text structure, content discourses, prior experience with particular texts and so forth – but as well are contingent upon their capacity to engage with the specific interactional demands, rule systems and power relations of institutions and everyday contexts of text use. Further, 'meaning-making' here does not necessarily entail a verification or celebration of literal and inferred meanings, but extends to critical analyses of their possible origins, motivations and consequences.

Hence, our definition runs beyond the conventional definitions of comprehension referred to by Snow et al. (1998). It includes the conventionally described cognitive processes of constructing, the retaining and recalling of meaning with a degree of fidelity to the semantic contents of a given text. But comprehension is in the first instance a cultural phenomenon, insofar as *lingua franca* competence, cultural and disciplinary taken-for-granted knowledge, and shared epistemic standpoint are necessarily in play. Second, it is a social phenomenon, insofar as readers 'do comprehension' both through interactional display and deployment of their understandings in institutionalised literacy events. Third, it is a political, historical and intellectual phenomenon, insofar as it entails entry into ideologically-based 'readings' of social worlds, everyday and technical knowledges, values and beliefs.

If, as the ideological model holds, we read in ways constrained and defined, enabled and afforded by contexts, then we read and make meaning not only through the reader/text interaction and cognitive processes described in traditional reading research, but as well via entry into institutional context, the very social fields of exchange where texts are used. This also requires a "reading of the world" (Freire & Macedo, 1987) – pluralised to readings of multiple worlds - and a "goal-seeking" (Watzlavick, Beavin & Jackson, 1967) engagement with substantive knowledge akin to Dewey's problem-solving aesthetics. We define comprehension, then, as a lived and

institutionally situated social and intellectual practice, as well as an internal cognitive operation.

Work in Progress: Whole School Literacy Curriculum Planning

To illustrate, we offer a brief account of our current experiences researching literacy learning and teaching at a large primary school in a low SES community in the sprawling suburbs of a metropolitan Australian city. This school has an overall enrolment of about 560 students, with approximately a quarter of these being Australian Indigenous students and migrant students learning in English as a Second Language/Dialect (ESL/D). By government estimates prior to the global economic crisis, about 20% of Australian children live in families whose aggregate income is below the Henderson poverty line, an annually adjusted threshold (Australian Institute of Health and Welfare, 2009). The school is located in an area classified in the lowest quartile of communities by combined indicators of socioeconomic position, with many children coming from families that are at least second generation unemployed.

The incidence of significant educational problems in the school is high. Approximately 6 per cent of the student population has been ascertained for special education provision using 14 system-specified categories. Adjusted literacy programs are provided for numbers of students in withdrawal and in-class programs by special education teachers and teacher aides. Administrative staff explained that many students who would benefit from further assistance are not included to prevent the overall number exceeding available funding thresholds, particularly in the middle and upper primary years. The proportion of students referred for speech-language assessment by classroom teachers is high – approximately 25-30 per cent of students in the early years. Some of these students are ESL learners who do not qualify for federal funding given origin in, or transit through, New Zealand as an English-speaking country.

Behaviour management, truancy and disengagement with instruction are day-to-day issues. A suite of measures is in place. Special education teachers write individual behavioural plans for students in their program, while a behavioural adjustment team teacher deals with students referred from the mainstream program. School-wide initiatives include explicit instruction in social and emotional skills for classroom participation. Ignoring others, turn-taking, interrupting, saying ‘please’ and ‘thank you’, and using ‘nice talk’ are amongst the topics addressed. Future priorities include revival of past practices whereby a special education teacher would withdraw students with behavioural problems, for one-on-one ‘talking’ sessions which involved guitar-playing, bicycle repair, and other hands-on activities. Programs for Indigenous students that provide opportunities to withdraw from classes for yarning circles and cultural activities already exist and are seen as successful across some measures.

We have completed the first six months of a four-year Australian Research Council funded research project at the school that brings together teachers and administration with a team of literacy researchers with the shared aim of sustainable improvements in literacy and overall school achievement. The ‘ramp-up’ period consists of an extended process of teacher/school leaders/researcher exchange, identifying issues and problems, building trust and learning about the community, students and school program. The two focal points of our work to date are on: (1) the implementation of a digital arts production program to re-engage middle years students in learning; (2) the development of a coherent whole school literacy program using the four resources model. The work we report here is preliminary, based on our initial planning and observation phases with teachers and students only.

A concern of administrators and teachers alike was that explicit instruction in comprehension was not occurring in many of the classes. This was corroborated in our classroom observations. The school does a reasonable job in early literacy instruction, with over 80% of students reaching a year 3 state testing benchmark, despite high

levels of special education ascertainment. But there is evidence of considerable residualisation of skills, with less than 60% of students meeting year 5 and year 7 state reading benchmarks. Although there is no longitudinal cohort data, the general trend indicates that many students who are achieving functional levels of decoding in the first three years of school are encountering major problems in subsequent, comprehension-based assessments: the fourth or fifth grade 'slump'. This pattern is common for lower socioeconomic primary schools in Queensland (Luke, Grieshaber, Shield & MacDonald, 2009) and is well-documented in US research (Allington & Johnson, 2002).

As we entered the school, middle years teachers were in the process of receiving a high quality, well-developed in-service in explicit comprehension teaching – a systemic initiative that began while we were in our planning stages. This approach, as across the district, was implemented on top of existing programs without the redevelopment of the school curriculum program reform. Teachers were enthusiastic and began to adopt an array of suggested strategies in the middle and upper primary years (years 4-7) that included: reciprocal teaching and pre-reading instruction in strategies and purposes for reading. There are reported post-treatment gains in comprehension test results in the upper elementary years. However, problems of disruptive behaviour and general disengagement with curriculum in the target grades persist.

During our planning phase of our research, we used the four resources to 'map' current curriculum and instruction. The process, which takes a full day workshop, aims to provide a graphic overview of the school's current literacy curriculum:

1. Teachers of the same grade/stage level bring their curriculum plans to the table;
2. Using the four resources model, they classify and list all of their current activities;
3. We then graphically plot the whole school program, using color coded cards to itemise which emphasise coding, semantic, pragmatic and critical resources.

We then walked a hypothetical student through the grade levels, noting where there are logical developmental transitions, particular emphases, and, in almost all cases, major shifts in terminology (e.g., different grammatical metalanguage, redundancy in the emphasis of genres). The aim of the exercise is to open a dialogue about curriculum and instruction without dictating a specific direction *apriori*. It intends to *deprivatise* practice: that is, to generate dialogue between teachers of the same grade level and across grade levels in schools. Teachers can then turn to an audit of school-based data on student background, cohort characteristics and community conditions (e.g., linguistic resources, cultural stocks of knowledge, media access and use, effects of poverty, local institutions), student performance data, and available staff expertise to begin retooling and rebalancing the curriculum to build bridges between student knowledge, capacity and needs and their classroom foci. It also enables the integration of substantive curriculum content and community study from other school subjects.

Under current test-driven, accountability policy – the teachers and school have been focused on improving year 3, 5 and 7 test scores on the new national tests. This has led to an emphasis on coding in the early years and the implementation of the aforementioned comprehension program. Yet while year 3 test scores have for the past two years stood above the averages for socioeconomically matched “like-schools” – the overall problems of behaviour management, lack of time-on-task in classrooms and persistent disengagement in classroom instruction, particularly in the middle and upper years, persists.

We concluded this initial planning session by offering some preliminary responses to the overall curriculum program. As in many other schools we have worked with, there were discontinuities and gaps in the program and little systematic planning and communication between those responsible for initial literacy and other teachers now working on comprehension strategies in the upper primary years.

But one key element of the school program jumped out at us. There was little discussion of substantive content, of an evident active Aboriginal community knowledge and engagement program, of linkages with other curriculum fields, and little hitching of these autonomous skills emphases with high-interest student activities in digital and multimodal media. That is, the test-driven emphasis on literacy 'skills' appeared to be operating as a 'stand-alone' curriculum entity, with little consideration for significant cultural and intellectual content, and little exploration of the possibility that comprehension instruction might be a viable site for the coverage of curriculum content from other school subjects.

This is something more than the "narrowing of the curriculum" described in qualitative work on the effects of NCLB (Nichols & Berliner, 2007). Autonomous skills models are 'autonomous' not only in their theoretical and practical framing: they also sit in literacy instruction that stands separately from the rest of school curriculum. This corroborates empirical claims that there is an overall decline in "intellectual demand" and "connectedness" or visible "value beyond school" (Newmann and Associates, 1996), a widespread phenomenon in Queensland and New South Wales schools established in large-scale observational studies (e.g., Lingard et al. 2002; Ladwig & Gore, 2003; Ladwig, 2008). These studies corroborated a core claim of the four resources model: that while basic, autonomous skills are necessary for progress, their attainment is not sufficient for sustained achievement gains amongst equity groups. The notion of 'connectivity' in play here goes beyond that inherent in text-to-self, text-to-text and text-to-world connection strategies taught in comprehension programs (e.g., Harvey & Goudvis, 2000). We are talking not of connection for the sake of enabling better cognitive processing of text, but of texts and contexts for comprehension that engage students in intellectual and community literate practices that matter.

In discussions with the teachers about their literacy program, there was almost no mention of substantive themes, topics and content. In our initial classroom

observations, this was obvious: with initial literacy lessons covering topics that seemed disconnected with these children's lives and topics of importance and interest. Middle years' programs attempted to cover conventional curriculum topics in school science and social studies, but the explicit instruction in comprehension tended to focus on reading strategies such as 'connecting', 'questioning', 'inferring' and 'finding the main idea', with negligible engagement with community knowledge, Indigenous and local history and culture, current events and affairs, and deep scientific and social scientific understandings. The pursuit of autonomous skills – appears to be overriding any substantive curriculum field knowledge and any substantive engagement with students' histories, backgrounds and cultural lives.

As noted, comprehension strategies are now being explicitly taught in many classrooms and there is evidence of positive effects on reading outcomes. However placing strategies as the central foci, without a regard for the content being covered has meant that in many classrooms the instruction remains insulated from community practices, institutional pragmatic uses, and substantive curriculum content. The students are practising more effective comprehension strategies, which may well lead to test score improvement. But we have yet to see evidence of increased pragmatic or critical engagement with institutions and communities and with substantive field and disciplinary knowledge. The latter is especially crucial for improved achievement of minoritised students in the transition into the middle years of schooling (Luke, Elkins et al. 2003).

Rethinking Comprehension: Why Substantive Content Matters

In a recent reanalysis of achievement test score impacts of comprehension programs, Slavin et al. (2009) note improved test score effects (e.g., Gates-MacGinitie) of comprehension-based curriculum and instruction. Before this is translated into a fresh mandate of autonomous skills taught in partitioned 'literacy hours', we need to carefully scrutinise the logic of policy applications of such analyses. The key operant policy

assumption is that small but statistically significant test score gains of equity cohorts will generate sustainable academic achievement gains and improved pathway outcomes for students from lower socioeconomic and cultural and linguistic minority students. The putative scientific grounds are that comprehension test scores are conventional predictors of overall academic achievement. This has common-sense appeal and we do not contest these findings. But the four resources model raises questions of *necessity and sufficiency of autonomous skills* – in both the code and comprehension - for sustainable improvement of the educational outcomes of low socioeconomic and cultural minority students.

Content matters. The aforementioned policy reviews of reading and literacy (see for example Snow et. al., 1998) support strategy instruction that involves explicit teaching of behaviours or procedures such as making inferences, comparisons or summarising. McKeown, Beck and Blake (2009) queried the prioritising of strategies in comprehension instruction, calling for "more precise understandings of present-day comprehension instruction" (p. 218). The issue is not whether schools renew attention to comprehension to 'close the equity gap'. This is a clear imperative. The question is: what is made to count as comprehension in these schools – and what versions of comprehension appear to have significant longitudinal effects on students outcomes, pathways and educational futures. McKeown et al. (2009) raise serious questions about classical issues of transfer of training from strategy-based instruction and point to the need for a stronger focus on substantive curriculum and intellectual content.

We argue that direct instruction in comprehension, reciprocal teaching/strategy-based instruction can set the table for improved equity peformance – but cannot in itself generate sustainable gains. What is required, Newmann and Associates (1966) have shown, is sustained engagement with substantive knowledge with visible links to both the phenomenal and social world outside of school and developmental exploration of curriculum/field/disciplinary knowledge, genres and technical registers. This entails a

close engagement with community knowledge and institutions, a “tuning up of the eyes and ears” (Heath, 1983) to how literacy works in everyday life, social institutions, and a scaffolded and motivating engagement with the substantive intellectual fields of school subjects and world knowledge. This combination of links to students’ lives and worlds outside of school, and the use of literacy to engage with specialised knowledge required by the school is a predominant feature of the culturally-based and critical approaches to reading we have described here. Comprehension is a social and intellectual practice for reading the world and for everyday social and cultural action in its institutions and fields.

As this article goes to press, we are jointly redeveloping the curriculum with our school-based partners. Our intention is to work with teachers using the four resources model to rebuild the school literacy curriculum. There is nothing in the literature that suggests that we cannot have an approach to literacy that includes direct and explicit instruction in coding and semantic resources – but that also engages with student knowledge and community culture, rich themes and content, and is intellectually challenging. Our work will entail a focus on direct instruction in reading, but also on substantive problems and themes, community texts and knowledge, technical genres, and affiliated social fields of knowledge and use. If readers review principles of school reform for equity and social justice (e.g., Hargreaves, 2003) and then turn to describe successful local schools that generate not only test score gains, but also lower incidence of behavioural problems, and higher levels of attendance, student engagement and time-on-task, and improved secondary retention and pathway articulation – they will likely encounter rich and intellectually challenging curriculum.

We have not here outlined a particular method – but rather a way of thinking about culturally inclusive and intellectually-demanding school curriculum planning and reform. It is time to move beyond the simple binary policy debates – between phonics and comprehension, between implicit and explicit instruction, between community and

canonical knowledge, between local knowledge and scientific discipline – and begin a thorough qualitative re-examination of those schools that have been successful at achievement of more equitable and just education.

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